

Notice of Allowability**Application No.**

09/824,853

Applicant(s)

JACOBS ET AL.

Examiner

SCOTT L. JARRETT

Art Unit

3623

- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERIT IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to interview held with Mr. Kimton Eng, September 19, 2008.
2. ☒ The allowed claim(s) is/are 8 and 12.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
(a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
(b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☒ Interview Summary (PTO-413),
Paper No./Mail Date 9/19/08.
7. ☒ Examiner's Amendment/Comment
8. ☐ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____.

/Scott L Jarrett/
Primary Examiner, Art Unit 3623

1. This Examiner's Amendment is in response to Applicant's Request for Continued Examination filed on September 10, 2008 and interviews held with a Mr. Kimton Eng on September 19 and 21, 2008. Claims 8 and 12 are amended herein and claims 9-11 are canceled herein. Currently Claims 8 and 12 are pending and allowed below, claims 1-7 being previously canceled.

Continued Examination Under 37 CFR 1.114

2. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on September 10, 2008 has been entered.

EXAMINER'S AMENDMENT

3. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in telephone interviews with Mr. Kimton N. Eng (Reg. No. 43,605) on September 19 and September 21, 2008.

Amendments to the Claims:

This listing of claims will replace all prior versions and listings of claims in this application.

1-7. (Canceled)

8. (Currently amended) A computer readable medium having instructions stored thereon for causing a computer to perform a method for assigning an order to a schedule ~~having an opening identified by iterating through a list of shifts potentially having sufficient time to accommodate the order and through a list of virtual free time blocks for each shift in the list of shifts, a virtual free time block representing an amount of time in which an order may be assigned by bumping assigned orders in a shift,~~ the method comprising:

the schedule having an opening identified by iterating through a list of shifts potentially having sufficient time to accommodate the order and through a list of virtual free time blocks for each shift in the list of shifts, a virtual free time block representing an amount of time in which an order may be assigned by bumping assigned orders in a shift;

where a customer has specified both an appointment window and an opening for the order,

generating a list of schedulable time blocks for a shift identified in the customer specified opening, the schedulable time blocks having at least one of a free time block and a virtual free time block and defining a range of time having openings to which the order can be assigned, the openings resulting from analysis of orders already assigned in the shifts;

intersecting the customer specified opening and the appointment window to obtain a time range defined by an overlap of the customer specified opening and the appointment window; and

assigning the order to a candidate opening if a schedulable time block from the list of schedulable time blocks includes at least one candidate within the time range; and

where a customer has specified the appointment window and not specified an opening for the order,

checking a list of openings for overlap with the appointment window;

generating a list of schedulable time blocks if there is no overlap, each of the schedulable time blocks in a list having at least one of a free time block and a virtual free time block and defining a range of time having openings to which the order can be assigned; [[and]]

assigning the order to the schedule if there is an opening in the list of openings that overlaps with the appointment window or an opening in the list of schedulable time blocks that overlaps with the appointment window;

incrementing the time required to travel to the order and from the order to a next order, incrementing a booked time for the shift by an amount of time needed for traveling to the order and an amount of time needed to work on the order, and adjusting a load level of the shift to account for the order;

in response to having accurate travel time information, aggregating orders closely related for assignment to a same mobile service representative;

in response to not having accurate travel time information, aggregating orders in close proximity based on address information; and

creating one or more usable free time blocks with greater duration to fit unassigned orders by defragmenting free time blocks.

9-11. (Cancelled)

12. (Original) The method of claim 11, further comprising committing the shift, which has been modified to fit the order, to a database.

ALLOWANCE

4. The following is an allowance. Claims 8 and 12, as amended above, are allowed below.

REASONS FOR ALLOWANCE

5. The following is an examiner's statement of reasons for allowance.

The present invention is directed to a computer readable medium having instructions stored thereon for causing a computer to perform a method for assigning an order to a schedule.

The closest prior art Powell et al., U.S. Patent Publication No. 2001/0049619 and/or WebVan, as evidenced by at least Clyde, Update: Material Handling in the food industry; Borders et al., WO 00/68859 and Borders et al., WO 00/68856, fail to teach or suggest either singularly or in combination a computer readable medium having instructions stored thereon for causing a computer to perform a method for assigning an order to a schedule assigning an order to a schedule having an opening identified by iterating through a list of shifts and through a list of virtual free time blocks for each shift in the list of shifts potentially having sufficient time to accommodate the order, a virtual free time block representing an amount of time in which an order may be assigned by bumping assigned orders in a shift; generating a list of schedulable time blocks for a shift identified in a customer specified opening, the schedulable time blocks having at

least one of a free time block and a virtual free time block and defining a range of time having openings to which the order can be assigned, the openings resulting from analysis of orders already assigned in the shifts; intersecting the customer specified opening and a customer specified appointment window to obtain a time range defined by an overlap of the customer specified opening and the appointment window; assigning the order to a candidate opening if a schedulable time block from the list of schedulable time blocks includes at least one candidate within the time range; where a customer has specified the appointment window and not specified an opening for the order, checking a list of openings for overlap with the appointment window; generating a list of schedulable time blocks if there is no overlap, each of the schedulable time blocks in a list having at least one of a free time block and a virtual free time block and defining a range of time having openings to which the order can be assigned; assigning the order to the schedule if there is an opening in the list of openings that overlaps with the appointment window or an opening in the list of schedulable time blocks that overlaps with the appointment window; incrementing the time required to travel to the order and from the order to a next order, incrementing a booked time for the shift by an amount of time needed for traveling to the order and an amount of time needed to work on the order, and adjusting a load level of the shift to account for the order; in response to having accurate travel time information, aggregating orders closely related for assignment to a same mobile service representative; in response to not having accurate travel time information, aggregating orders in close proximity based on address information; and creating one or more usable free time blocks with greater duration to fit

unassigned orders by defragmenting free time blocks as recited in independent Claim 8.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- Dore et al., U.S. Patent No. 5,355,368, teach a system and method for allocating time slots in Time Division Multiple Access transmissions.
- Sorkin et al., U.S. Patent No. 6,484,036, teach a system and method for scheduling mobile technicians (agents) to a schedule.
- Goto et al., U.S. Patent No. 7,343,316, teach a system and method for remotely assigning employees to shifts.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to SCOTT L. JARRETT whose telephone number is (571)272-7033. The examiner can normally be reached on Monday-Friday, 8:00AM - 5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Beth Boswell can be reached on (571) 272-6737. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Scott L Jarrett/
Primary Examiner, Art Unit 3623